SECTION C Descriptions and Specifications

C. l Scope of Work

The contractor shall furnish engineering and technical analysis and support services in connection with assigned tasks for naval ship Hull, Mechanical and Electrical (HM&E)/Combat Support Systems. Services will be related to Surface Combatants and will include the new DDG 51 Class Flight IIA and associated program initiatives. The tasks will require support in the following geographical locations with the estimated percentage of time provided in parentheses: Philadelphia PA (30%), West Coast including San Diego CA and Everett WA (17%), Wash DC (9%), Pascagoula MS (9%), Bath ME (9%), Mayport FL (9%), Norfolk VA (9%), and Pearl Harbor HI (8%). Other locations may need to be visited to support assigned tasking. Delivery Orders and work assignments will be in the following areas and shall include but not be limited to the following typical examples:

a. Engineering Support

(1) Provide on-site engineering and technical services support during construction, in service, and during maintenance periods in connection with Surface Combatant Ship HM&E/Combat Support Systems and components being installed, maintained or altered by ship's force, private contractors, or public organizations. Ensure equipment tests are conducted/completed in accordance with test procedures and/or work packages. Provide equipment status/problems with recommendations for solutions and provide recommendations wrt work being performed. Majority of this support will be provided at Surface Combatant Homeports and Building Yards.

(2) Investigate and review HM&E/Combat Support Systems equipment Work Packages for Post Shakedown Availabilities (PSA) to ensure correct technical content, priority, category, and applicability. Provide PSA Work Package monitoring; work progress status on a daily basis on-site at ship's location. This is primarily for new DDG-5 1 Class Flight IIA ships. Locations include San Diego, CA, Pearl Harbor, HI, Bath, ME, and Pascagoula, MS.

(3) Establish the requirements for improving the operation and maintenance of shipboard systems and equipment, and prepare specifications for their implementation.

(4) Perform field tests of ship systems and equipment and evaluate their performance as compared to detailed design parameters. Witness the installation of ship and machinery alterations and report deviations from planned execution.

(5) Provide information regarding the preparations and support services required in advance of ship maintenance availabilities.

(6) Review and comment on the specifications for repair and overhaul of surface combatants prior to their being issued.

(7) Support mission objectives of the Corrosion Control Integrated Product Team (CCIPT) by evaluating corrosion prevention methods, new technology corrosion solutions, corrosion control improvements. Inspect ship HM&E/Combat Support Systems equipment installations and provide technical guidance relating to corrosion and preservation. Prepare reports and make recommendations for the improvement of the construction and maintenance of the ships to reduce or eliminate such corrosion.

(8) Support NAVSEA Philadelphia's role as Surface Combatant Integration Agent and efforts to ensure system compatibility for all equipment and ensure proper interface requirements. Provide verification of specifications and development of long term maintenance/upgrade strategies.

b. Program Management Support

(1) Maintain liaison between NAVSEA organizations and NAVSEA Philadelphia to assure the proper flow of information regarding the priorities for and the status of ship construction, operation, and maintenance.

(2) Record and provide a written status of the actions being performed on ship systems and equipment in response to tasking from oversight authorities.

(3) Collect data from NAVSEA Philadelphia elements regarding status of assigned SEATASKs and prepare required databases and spreadsheets in preparation for Sponsor Program Reviews.

(4) Develop databases and reports indicating status of equipment deficiencies, installation, operation, and maintenance as required to support new and ongoing Surface Combatant Programs. This includes Operational Sequencing System (OSS) and Planned Maintenance System (PMS).

c. Technical Support

(1) Research the technical requirements, availability, and alternate solutions for the provision of spare parts and assemblies for ship systems and equipment and provide the information to the ship having the requirement.

(2) Identify material and logistics discrepancies via the review of Fleet COSAL Feedback Reports, Automated COSAL Improvement Program issues, System installation, alteration or engineering drawings or provisioning documentation. Maintain data regarding the utilization of spare parts and provide analysis of the unusual consumption of parts.

(3) Resolve discrepancies via the development and submission of HM&E/Combat Support Systems equipment APL change sheets and development, update, or modification to Provisioning Parts Lists.

(4) Provide information to be used in revising technical documentation regarding the installation, testing, operation, and maintenance of ship systems and equipment.

(5) Assist in the coordination of crew training in preparation for DDG 51 Class ship's formal system Light Off and other events.

(6) Support review, development, and revision to System and Equipment Integrated Electronic Technical Manuals (IETM) and other ILS elements which NAVSEA Philadelphia has designated authority.

d. Documentation Support

(1) Prepare technical documentation in the form and format specified by various users to support the installation, operation, and maintenance of ship HM&E/Combat Support Systems and equipment.

(2) Prepare the materials necessary to make presentations to ship's forces, senior Navy officers and officials and other Navy organizations.

(3) Prepare and publish reports documenting the results of testing and the actual operation and maintenance of ship systems and equipment.

e. Data Analysis

(1) Develop and maintain computerized information and databases concerning the installation, operation, maintenance, and alteration of systems and equipment.

(2) Prepare funding charts using excel to show graphical representations of funding expenditures and spreadsheets/databases relative to program funding.

(3) Support translations of computer files to HTML format, and support Web Site development and maintenance.

(4) Collect official naval messages regarding ship status and technical information and route to responsible parties.

(5) Analyze various data to identify equipment problems and trends that may exist across ships of the same class.

C.2 Standard for Preparation

a. The contractor shall provide all technical and engineering services necessary to complete the requirements of each Delivery Order issued. Each Delivery Order will contain a statement of requirements, instruction, and available supporting data, sketches, engineering drawings, and related technical documentation relative to the task and will be furnished by the government as specified in each Order.

b. The contractor shall perform all engineering services using as guidelines the applicable Military Specifications and documents listed below, and the instructions specified in each Delivery Order. The Military Specifications and documents are:

(1) DOD-STD-100D - Engineering Drawing Practices

(2) DOD-D-1000B, Amend 4 - Drawings, Engineering and Associated Lists

(3) MIL-D-100B, Data, Engineering and Technical reproduction Requirements for

(4) MIL-M-9868D - Microfilming of Engineering Documents, 35mm, Requirements for

(5) MIL-STD-1375, INT Notice 1 - Provisions, Initial Support, General Requirements for

(6) DOD-STD-480A, Notice 1 - Configuration Control - Engineering Changes, Deviations, and Waivers

(7) MIL-S-52779A, Software Quality Assurance Program

(8) MIL-M-1507H - Technical Manuals for Equipment and Systems

(9) MIL-STD-490A - Specification Practices

(10) MIL-M-85337A - Manuals, Technical - Quality Assurance Program, Requirements for

(11) MIL-M-8910A, Amend 2 - Technical Manuals, Technical Illustrated Parts Breakdown, Preparation of

(12) MIL-STD-109 - Quality Assurance Terms and Definitions

(13) DOD Manual 4120.14-M - Automated Data System Documentation Standard

(14) MIL-P-24534A - Planned Maintenance System - Development of Maintenance Requirement Cards, Maintenance of Index Pages, and Associated Documentation

(15) MIL-HDBK-59B - DOD CALS Implementation Guide

(16) MIL-STD-1840B - Automated Interchange of Technical Information

(17) MIL-D-28000A - Digital Representation for Communication of Product Data - IGES Application Subsets and IGES Application Protocols

(18) MIL-M-2800lA - Standard Generalized Markup Language (SGML) - Generic Style Specification for Electronic Printed Output and Exchange of Text

(19) MIL-R-28002B - Requirements for Graphics Representation in Binary Format

(20) MIL-M-28003 - Digital Representation for Communication of Illustration Data -Computer Graphics Metafile (CGM) Application Profile

(21) MIL-STD-974 - Contractor Integrated Technical Information Services (CITIS)

(22) MIL-M-87268 - Interactive Electronic Technical Manual User Interaction Requirements

(23) MIL-D-87269 - Interactive Electronic Technical Manual Data Base Requirements

(24) MIL-M-87270 - Interactive Electronic Technical Manual Quality Assurance Requirements

(25) MIL-STD-1388: Integrated Logistic Support; Policy and Procedures

(26) System/Equipment drawings, Technical Manuals, and Provisioning Technical Documentation

(27) MIL-D-23140- Shipboard Electronic Equipment

(28) MIL-M-24100 - FOMM TM Requirements

(29) MIL-M-8910 - Preparation of TM IPB

(30) MIL-M-15071 - TM Technical Content Requirements

(31) MIL-M-38784 - TM General Style and Format Requirements

(32) NAVSEAINST 4160.3 - TMMP

(33) S9086-AA-STM-010 - Naval Ship Technical Manual (NSTM)

c. The contractor shall be responsible for the planning, direction, and completion of each Delivery Order. This degree of responsibility requires the contractor to be accountable for the gathering, correlation, and interpretation of all technical data needed to perform an assigned task.

d. The contractor shall be responsible for the quality and technical accuracy of all work performed in fulfilling the requirements of each Delivery Order. All work shall be thoroughly reviewed, inspected, and checked by the responsible contractor representative prior to delivery to NAVSEA Philadelphia for review and acceptance.

C.3 Personnel Resources

a. Personnel Qualifications - The contractor is required to have personnel with the following minimum professional technical levels and experience. The specialized experience included, as part of the required qualification shall have been obtained in the field of endeavor indicated by the applicable labor category.

KEY PERSONNEL:

(1) Program Manager

A. A bachelor's degree in engineering (mechanical, electrical, or naval architecture) from an accredited college or university or a professional engineer's license.

B. Fifteen years of experience dealing with the construction, operation and maintenance of surface ships. A minimum of five years experience directly related to AEGIS (CG-47 and DDG-51) Class Ships.

C. Familiarity with the Naval Sea Systems Command, the Naval Surface Warfare Center (particularly the Ship Systems Engineering Station), and Navy maintenance and repair organizations.

D. Experience managing ship construction, operation, maintenance and repair projects and personnel.

E. Ten years of experience dealing with government contracts.

(2) Senior Engineering Technician

Graduate of a high school, trade or industrial school or correspondence school in which credits were received in algebra, plane geometry, trigonometry, drafting and physics. A minimum of nine years of practical experience in responsible engineering duties. Of the years of experience, five years must have been progressive experience involving design, operation, maintenance, and testing of AEGIS Class Naval ship systems and equipment.

(3) Senior Corrosion Control Technician

A. Must be a graduate of high school, trade school, industrial school, or correspondence school in which credits were received in algebra, plane geometry, trigonometry, drafting, and physics. Minimum of nine years of practical experience in responsible engineering duties which five years of the experience shall include the prevention and control of corrosion and in hull, topside, interior, and deck surface coating systems with particular emphasis on AEGIS Class (DDG-51and CG-47) ships. Must be familiar with and experienced in the application of the regulations of the Clean Air Act. NESHAP, EPA, OSHA, ASTM 718F, and the Material Data Safety Sheet with regard to VOC compliance. Must hold a certification as a "Coating Systems Inspector" by either the National Association of Corrosion Engineers, NAVSEA Philadelphia, or NSWCCD-Port Huenume. Must show evidence of experience in the following areas:

Engineering Support

1. Provide corrosion control policy guidance and technical support at the Program level for NAVSEA organizations such as PEO-TSC with regard to AEGIS Class (DDG-51 and CG-47) ships.

2. Conduct surveys of underwater hull, topside, interior, and decks to determine the effectiveness of specific corrosion control systems including attendance at AEGIS Class (DDG-51 and CG-47) Post Shakedown Availabilities.

3. Review and provide technical guidance on specifications being prepared for corrosion control systems to be installed during new AEGIS Class (DDG-51 and CG-47) ship construction, maintenance, and repair.

4. Interpret and provide guidance regarding the practical application of government regulations regarding paint, coating, and preservation system application compliance.

5. Provide technical guidance concerning the techniques involved in the inspection of preparation and application of corrosion protection systems.

NON-KEY PERSONNEL:

(1) Engineering Technician

Graduate of a high school, trade or industrial school or correspondence school in which credits were received in algebra, plane geometry, trigonometry, drafting and physics. A minimum of six years of practical experience in responsible engineering duties which three years of experience shall include progressive experience involving design, operation, maintenance, and testing of Naval ship systems and equipment.

(2) Computer Programmer

A bachelor's degree in computer science, engineering, mathematics, or physics. A minimum of three years of practical experience working with computer software programs, network software, and data management systems.

(3) Logistician

A bachelor's degree or equivalent in an engineering discipline and a minimum of four years of Naval experience or six years of Naval experience without a degree. Of the years of experience, two years of experience must have been specifically involved in material and Integrated Logistics Support (ILS) identification and management for Naval HM&E/Combat Support Systems.

(4) Engineering Typist

Desire experience in typing technical reports, training programs, test procedures and other engineering documentation. Desire familiarity with MILSPEC standards and procedures for preparation of technical documents.

C.4 Deliverables

a. Monthly Progress Reports (CDRL A001). The contractor shall provide monthly progress reports of activities conducted under the contract. It shall include for each active delivery order a summary of work completed, work schedule status, planned work for the next month, problem areas and proposed solutions, award date, completion date, delivery order number, title, tpoc, % work complete, labor hours expended by labor category (include estimated/authorized, actual this period, total to date, and expected next period) and funding expended (for labor, material, travel, total cost, fee, and total cpff, and balance), and a total man hour summary of labor hours by category (include estimated/authorized, actual for the period, total to date, expected next period) and total finds expended (for labor, material, travel, total cost, fee, and total cpff, and balance) for all delivery orders, active or completed. Monthly Progress Reports shall be submitted in accordance with the terms of the contract. A line chart (ex. created with MS Excel) shall be submitted with the monthly reports to provide a graphical representation for planned expenditures, actual expenditures, ceiling price, & incremental finding (if applicable). Also, a delivery order status including delivery order #, task description, tpoc, performance period, extensions requested, percent complete, authorized cost, finds balance, DD Form 254 submittals, with active delivery orders highlighted and delivery orders expiring within 2 months in bold type.

b. Weekly Status Reports (CDRL A002). The contractor shall provide weekly status reports for each delivery order. Each report shall include the contract number and delivery order number, location of services, name of personnel performing services, reporting period, name of COR and Tpoc, description of work accomplished, problems encountered, corrective action taken or recommended, meeting/conference summaries, reports provided, documentation reviewed.

C.5. Security Requirements

Certain work to be performed under this contract shall involve access to, and handling of, classified material up to and including SECRET. Accordingly, the contractor shall be required to have, or obtain a Facility Security Clearance, provide classified storage capability, and obtain security clearances on certain key personnel. If the basic DD Form 254, Contract Security Classification Specification, does not provide sufficient classification guidance for the individual delivery order, then an applicable DD Form 254 shall be issued for the delivery order.